

**IN THE CLAIMS**

Please rewrite Claims 133, 136, 154 and 157 as shown herein.

1        133. (Amended) A compound objective lens, comprising a region to produce a  
2        focal point on an information plane through a layer, wherein  
3        the region of the lens is divided into a plurality of regions including at least both  
4        of a first region and a second region by dividing the region of the lens depending  
5        on differences in a distance from an optical axis of the lens,  
6        the first region being located at a position farther from the optical axis than a  
7        position of the second region,  
8        the second region being optimized so that the lens has a numerical aperture NA2  
9        to produce a focal point through a second layer on an information plane placed at a  
10       distance T2 from a surface of the second layer, and  
11       both of the first region and the second region being optimized so that the lens has  
12       a numerical aperture NA1 (NA1 is not equal to NA2) to produce a focal point through a  
13       first layer on an information plane placed at a distance T1 (T1 is not equal to T2) from  
14       the surface of the first layer,  
15       wherein the compound objective lens has a first convex surface and a second  
16       convex surface opposite to each other, for receiving a beam of incident light of one  
17       particular wavelength passing through the optical axis at the first convex surface, and the  
18       compound objective lens refracts the beam of incident light and emits a beam of refracted  
19       light from the second convex surface, and  
20       the region of the lens receives the beam of incident light not yet refracted by the  
21       lens, and generates from the incident light a plurality of beams of divided light, and

22 generates a plurality of focal points which are placed on the optical axis on a side facing  
23 the second convex surface.

1 136 (amended). A compound objective lens according to claim 134, in which the  
2 optical relief is provided on a side of the compound objective lens opposite to an optical  
3 disk.

1 154. (Amended) An optical head apparatus for performing at least one of  
2 recording and reproduction of pieces of information on and from an optical disk placed to  
3 face the optical head apparatus, comprising

4 (i) an optical source for radiating a light beam; and  
5 (ii) a compound objective lens receiving the light beam and comprising a region  
6 to produce a focal point on an information plane through a layer, wherein

7 the region of the lens is divided into a plurality of regions including at least both  
8 of a first region and a second region by dividing the region of the lens depending  
9 on differences in a distance from an optical axis of the lens,

10 the first region being located at a position farther from the optical axis than a  
11 position of the second region,

12 the second region being optimized so that the lens has a numerical aperture NA2  
13 to produce a focal point through a second layer on an information plane placed at a  
14 distance T2 from a surface of the second layer, and

15 both of the first region and the second region being optimized so that the lens has  
16 a numerical aperture NA1 (NA1 is not equal to NA2) to produce a focal point through a

17 first layer on an information plane placed at a distance T1 (T1 is not equal to T2) from  
18 the surface of the first layer,  
19 wherein the compound objective lens has a first convex surface and a second  
20 convex surface opposite to each other, for receiving a beam of incident light of one  
21 particular wavelength passing through the optical axis at the first convex surface, and the  
22 compound objective lens refracts the beam of incident light and emits a beam of refracted  
23 light from the second convex surface, and  
24 the region of the lens receives the beam of incident light not yet refracted by the  
25 lens, and generates from the incident light a plurality of beams of divided light, and  
26 generates a plurality of focal points which are placed on the optical axis on a side facing  
27 the second convex surface.

1 157. (Amended) An optical disk apparatus, comprising;  
2 (1) an optical head apparatus for performing at least one of recording and  
3 reproduction of pieces of information on and from an optical disk placed to face the  
4 optical head apparatus, comprising:  
5 (i) an optical source for radiating a light beam; and  
6 (ii) a compound objective lens receiving the light beam and comprising:  
7 a region to produce a focal point on an information plane through a layer, wherein  
8 the region of the lens is divided into a plurality of regions including at least both  
9 of a first region and a second region by dividing the region of the lens depending  
10 on differences in a distance from an optical axis of the lens,  
11 the first region being located at a position farther from the optical axis than a  
12 position of the second region,

13        the second region being optimized so that the lens has a numerical aperture NA2  
14   to produce a focal point through a second layer on an information plane placed at a  
15   distance T2 from a surface of the second layer, and  
16        both of the first region and the second region being optimized so that the lens has  
17   a numerical aperture NA1 (NA1 is not equal to NA2) to produce a focal point through a  
18   first layer on an information plane placed at a distance T1 (T1 is not equal to T2) from  
19   the surface of the first layer, and  
20        wherein the compound objective lens has a first convex surface and a second  
21   convex surface opposite to each other, for receiving a beam of incident light of one  
22   particular wavelength passing through the optical axis at the first convex surface, and the  
23   compound objective lens refracts the beam of incident light and emits a beam of refracted  
24   light from the second convex surface, and  
25        the region of the lens receives the beam of incident light not yet refracted by the  
26   lens, and generates from the incident light a plurality of beams of divided light, and  
27   generates a plurality of focal points which are placed on the optical axis on a side facing  
28   the second convex surface;  
29        (2) a moving apparatus for moving the optical head apparatus; and  
30        (3) a rotating apparatus for rotating the optical disk.

### **Status of the Claims**

Having made the foregoing amendment in accordance with the provisions of 37 CFR 1.173(b)(2), in accordance with the provisions of 1.173 (c) applicants supply herewith

“the status (*i.e.*, pending or canceled), as of the date of the amendment, of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes made to the claims.”

More specifically:

Patent claims 1-18 are pending;  
added claims 19-85 are pending  
added claims 86-87 were canceled  
added claim 88 is pending  
added claims 89-91 were cancelled  
added claims 92-93 are pending  
added claims 94-112 were canceled  
added claim 113 is pending  
added claim 114 was canceled  
added claim 115 is pending  
added claims 116-121 were canceled  
added claims 122-123 are pending  
added claims 124-125 were canceled  
added claim 126 is pending  
added claim 127 was canceled  
added claim 128 is pending  
added claims 129-130 were canceled  
and added claims 131 – 159 are pending.

**Support for Claim Changes**

In accordance with the requirement of 37 CFR 1.173(c), the following statement provides an explanation of the support in the disclosure of the patent for the changes made to the claims.

It is respectfully submitted that support for the limitations added to claims 153, 154 and 157 by the present amendment is clearly found in issued claim 11 of the patent, as annotated and discussed (e.g., beginning at page 10) in the following Remarks. The Remarks identify the changes made in the added claims amended herein, and demonstrate that such changes relate to features recited in the issued patent claims, as particularly illustrated by claim 11. Inasmuch as the claims are part of the patent disclosure, it is further submitted that the foregoing provides the explanation of support as required by 37 CFR 1.173(c) and that no further explanation for these changes is thus required.

The present change to claim 136 is provided in response to the Examiner's objection, to avoid a question of antecedence, and does not add any features to the claim. Therefore, support for the change is found in the pending Official Action.